Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Implementing Kari's Law and Section 506 of RAY BAUM'S Act	)	PS Docket No. 18-261
	)	
Inquiry Concerning 911 Access, Routing, and Location in Enterprise Communications Systems	)	PS Docket No. 17-239

COMMENTS OF AVAYA, INC.

I. INTRODUCTION

Avaya, Inc. ("Avaya") welcomes the Commission's Notice of Proposed Rulemaking[1] ("*NPRM*") on implementing two critically important new laws, Kari's Law[2] and RAY BAUM'S Act.[3] For more than 20 years, Avaya has been a leader in developing and managing enterprise level emergency 911 solutions. Since the mid 90's both Nortel[4] and Avaya have addressed the multi-line telephone systems ("MLTS") issue with feature functionality and capabilities to assist in the notification and call processing of emergency calls. As the two companies added IP Telephony services to their platforms, they also added IP discovery methodologies as well as interfaces that allowed external third party services to interact and update the legacy Emergency Services databases. At that time, and until most recently, the legacy PSTN network was required to terminate 911 calls. More recently, the existence of VoIP Positioning Carriers ("VPC") has

[1] *Implementing Kari's Law and Section 506 of RAY BAUM'S Act*, PS Docket Nos. 18-261 and 17-239, Notice of Proposed Rulemaking, FCC 18-132 (Sept. 26, 2018).

[2] Kari's Law Act of 2017, Pub. L. No. 115-127, 132 Stat. 326 (2018) (codified at 47 U.S.C. § 623) (Kari's Law).

[3] Section 506 of the Repack Airwaves Yielding Better Access for Users of Modern Services Act of 2018 (RAY BAUM'S Act), Pub. L. No. 115-141, 132 Stat. 348, 1095 (codified at 47 U.S.C. § 615 note).

[4] Avaya acquired Nortel's enterprise business, including Nortel's MLTS products, in December 2009.

allowed Cloud based services to overlay the national PSTN network, and again, Avaya worked with VPCs to further develop features and capabilities to support these services.

Avaya has regularly promoted best practices for users, including direct dial capabilities, routing calls directly to 911 without interception, and on-site notification. Each and every year Avaya delivered sessions on these best practices, warning of the dire consequences that ended up taking the life of Kari Hunt in a Marshall, Texas hotel on December 1, 2013. Shortly after that incident, Avaya began working with Hank Hunt to provide draft language to Kari's Law. Avaya met with then Commissioner Pai in January 2014, and again in March of that year at the 911 Goes to Washington event for a report and update. Avaya also worked closely with Suffolk County, New York, Illinois, Texas CSEC, Pennsylvania and the New York City Council as well others to bring Kari's Law to fruition. The culmination of these efforts came this year with the passage of Kari's Law and RAY BAUM'S ACT. These legislative mandates direct the Commission and the wider telecommunications industry to ensure the effectiveness of 911 technologies, even in enterprise or MLTS environments.

At the outset of this process, then, it is critically important that the Commission not implement rules that run contrary to the accomplishments that Avaya and others have championed and that resulted in critical updates to 911 infrastructure. Specifically, the Commission must support on-site notification as a solution that increases the ability of first responders to locate an alert location. The Commission must not create regulations that show a preference for services that share granular location information with a PSAP, where on-site notification technologies are a powerful, more reliable option.

In particular, Avaya is a provider of the SENTRY™ solution in numerous contexts. SENTRY™ uses standard network protocols and discovery techniques to track the location of any

IP telephone device on the network, ingests MLTS database information from TDM devices that cannot be located natively, provides routing guidance and updates to the MLTS once a device has been discovered, and provides an on-site notification and situational awareness to local onsite staff, escalating if needed. SENTRY™ also provides a NENA i3 compliant Additional Data Repository ("ADR") allowing public safety to access information pertaining to the enterprise emergency, such as location information, environmental data, and access to IP video cameras. Given the valuable contribution of SENTRY™ to ensuring accurate, reliable alerts to on-site and first responders, the Commission should recognize and incentivize SENTRY™ and similar notification-based technologies.

II. INCENTIVIZE COMPREHENSIVE ON-SITE NOTIFICATION SOLUTIONS

The Commission should recognize and incentivize comprehensive on-site notification solutions. While notification of first responders is, of course, the primary goal of this proceeding, notification of on-site enterprise management and staff plays an important, albeit distinct role that the Commission must promote. Thus, while Avaya supports the Commission's proposal regarding direct dialing,[5] Avaya proposes changes to the Commission's discussion of notifications pursuant to Kari's Law. *See NPRM* at ¶¶ 19–27.

In MLTS, notification of enterprise management and staff is critical for facilitating emergency response. Personnel on the ground at the MLTS premise have knowledge of the location that first responders cannot match. On-site responders can prepare the location for first responders by, among other things, "ensuring access doors are unlocked, elevators are available and hallways are unobstructed." *NPRM* at ¶ 21. First responders, in contrast, may not recognize

[5] *See NPRM* at ¶ 18 and Appendix A (Proposed Rules), Section 9.16(a)(1), (b)(1).

where "cubical 2C-231" is located in the facility; instead, first responders require information to access the correct building through the correct door.

Recognizing these different needs, on-site notification should include details that may not be conveyed to the PSAP. On-site notification must include location information that clearly establishes the location of the caller. Notifications to the PSAP, by contrast, need only include a **dispatchable address** that properly computes within the GIS database at the PSAP and that provides sufficient information about the physical address and entry door to the facility.

In addition, on-site notification should include alerts with an acknowledgement function and an escalation function, ensuring that the alert is received and enabling on-site personnel to escalate alerts as needed. Then, a call back number of the on-site representative that acknowledged the alert should be provided to first responders to facilitate a coordinated response between on-site and first responders. On-site responders should always have the ability to access or facilitate access to an alert location. Avaya agrees that on-site notification should always be contemporaneous, *see NPRM* at ¶ 23, and should be automatically escalated if no on-site response is received in a pre-determined amount of time.

A clear benefit of on-site notification is the reduction in reporting details to the PSAP, reducing operational costs associated with the deployment of the emergency solution. First responders arriving at a dispatchable address will not have the facility knowledge of on-site responders. On-site responders can guide first responders to the location of the alert. This reduces the costs of housing and constantly updating individual 911 dispatch location records in favor of an approach that relies on local, on-site response.

In some circumstances, enterprises may choose to use technology that enhances first responder response without relying as much on on-site responders. For example, the enterprise

may choose to display dynamic floor plans, MSDS sheets, lists and links to IP based security cameras, and even personal opt-in information provided by an individual. An enterprise may also choose to display localized location information on a digital signage monitor, or even a panel that mimics a fire alarm panel that uses a visual mechanism to show the location of an alert. This information augments the details available to first responders, and if deployed at strategic locations at the dispatchable address, this information can be made available to first responders, with or without the assistance of on-site personnel.

In addition to providing first responders with real-time, location-specific information when they arrive at a dispatchable address, advanced systems, such as those provided by Avaya, provide access to additional relevant information to the PSAP in a NENA i3 compliant architecture. This can be accomplished utilizing connectivity to the ESINet directly or providing access through an exposed webservice open to the PSAP over the internet. This repository provides access in real-time to detailed information at the enterprise in a dynamic and updatable environment. The data presented already exists and is current and up to date.

With regard to outside security firms or alarm companies, *see NPRM* at ¶ 26, Avaya has had discussions with companies looking to add these services to their suite of products. In one case, an alarm company considered consolidating onsite services where it maintained a 24 x 7 presence to 'cover' access to other facilities in close proximity on a per call out basis. This service could be valuable for smaller enterprises to outsource security as a way of managing costs. *See NPRM* at ¶ 27.

Avaya asks that the Commission consider such on-site notification solutions as part of this rulemaking process. Solutions such as SENTRY™ incorporate on-site notifications, and have been deployed in hundreds of enterprise contexts.

III. ENSURE TECHNOLOGY NEUTRAL APPLICATION OF DEFINITIONS

The definition of MLTS, *NPRM* at ¶ 28, must be technology neutral and support premise-based and cloud-based solutions. MLTS should, at a minimum, include any system capable of making an outbound call. *NPRM* at ¶ 30. Outbound-only systems are not indicated at the PSAP, and both outbound-only and two-way calling can be deployed together on the same system. Callbacks are then directed to a central position that would receive an on-site notification and be aware of the incident. This call-back number would be able to provide more information as part of a coordinated response.

IV. AVAYA SUPPORTS ENFORCEMENT PENALTIES TO ENSURE COMPLIANCE WITH KARI'S LAW

Consistent with *NPRM* at ¶ 42-43, Avaya agrees that enforcement initiatives are significant incentives to comply with federal laws. Even minor fines, such as those imposed per the NYC Direct Dial law, provide nominal fines that create compliance incentives. Waivers should not be encouraged, because many systems that may not be compliant can be upgraded at minimal expense. If the Commission considers permitting waiver, it should require that any waiver request demonstrate that the requesting party has completed reasonable cost evaluations include the make, model, and software release number so the Commission can determine whether a waiver is warranted. Ultimately the MLTS operator should bear the responsibility of compliance. If services are subcontracted, the operator must ensure the subcontractor implements compliant technologies, because the operator should remain primarily responsible for compliance.

V. DISPATCHABLE LOCATION MANDATES ARE UNNECESSARY IN ON-SITE NOTIFICATION DEPLOYMENTS

Some commenters in this proceeding are pushing for desk level accuracy details to be sent to the 911 dispatcher because this model is consistent with the service offerings made available by

these commenters. This approach is not necessary, however. Using on-site notification solutions and technologies instead can solve many of the issues discussed in the Commission's analysis of implementation of RAY BAUM'S Act's dispatchable location mandate. *See NPRM* at ¶¶ 52-65. To correct the record, when a 911 call is placed in an MLTS environment, an on-site location is not included in the information sent to the PSAP. While RAY BAUM'S Act seeks to augment dispatchable location information, the Commission must recognize the significant value of on-site response, discussed above, that enables first responders to leverage on-site resources to find the response location. Where an enterprise has developed an on-site response plan that utilizes on-site notifications, no additional location details need to be submitted to the PSAP.

Storing, updating, and maintaining 911 records for direct sharing to the PSAP is expensive and excessive. In Avaya's experience, leveraging on-site resources is a preferred approach. For example, Avaya consulted with a hospital that had more than 36,000 devices connected to its MLTS system. Storing, updating, and maintaining this information even at a competitive monthly cost of $1 per month per device resulted in a significant projected expenditure of $432,000 annually. Avaya worked with the hospital to identify 1,400 dispatchable address locations that could then be equipped with additional directions for on-site and first responders to direct the responder to the source of each alert. The cost savings here was significant and over $420,000 annually. Beyond these cost savings, though, this experience demonstrates that exact location is often useless to a first responder, especially given the complexity of certain enterprise environments, floor plans, and numbering systems. Avaya supports technologies, like digital signage and on-site response plans that will facilitate locating and arriving at the location of the alert.

The Commission should therefore carefully consider how to define dispatchable location. *See NPRM* at ¶ 56. Avaya agrees that dispatchable location must quickly lead first responders to the appropriate street address, building, and access door.[6] But additional, internal detail should not be mandatory if an enterprise has developed and promulgated a comprehensive response plan that coordinates on-site response with first responders, and directs first responders to the site of the alert.

With regard to "granular information" that may be necessary in an MLTS context, *see NPRM* at ¶ 58, Avaya believes that the Commission need not include specific mandates. For example, the Commission mentions model legislation that uses square footage, but this is not often an indicator of complexity of responding to an alert in a facility. Instead, Avaya is aware that other metrics, like locations and number of ingress, egress, and safety hazards are important to convey to local officials for effectiveness in responding to an emergent condition. Fire alarm zones are excellent examples because these zones have been reviewed by public safety officials. If the Commission mandates any of these, however, this requirement could create burdens that may not necessarily apply evenly to every enterprise facility. The preferred approach is to encourage local public safety officials to partner with enterprise facilities to identify information needed about facilities and response to emergency alerts.

The observations supplied by West, *NPRM* at ¶ 61, are a red herring. The fact that an ECS has the ability to support remote IP connected users is reason enough to believe that the ECS has the ability to identify these devices as remote connected devices. If these devices are located outside of the service area of the ECS, then Carrier VPC services can be deployed to handle the remote 911 calls just as they would for any remotely connected office based user, or a facility

[6] Avaya agrees with the Commission that physical street addresses must be validated, and confirms that there is no significant cost to doing so. *See NPRM* at ¶ 57.

utilizing SIP based trunks in the cloud that **requires** a VPC service.

As a final note, responding to *NPRM* at ¶ 65, the National Emergency Address Database ("NEAD") approach is unproven to date. NEAD has not been proven to be accurate or current, and therefore, following this model is inadvisable until the accuracy of NEAD data has been established.

VI. CONCLUSION

Avaya urges the Commission to promote on-site notification as an element of any additional requirements for MLTS. Cost-effective on-site notification solutions, such as SENTRY™, provide critical, real-time information that improves the ability of first responders to locate emergency callers.

Respectfully submitted,

/s/

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